We claim:

1. A method for inhibiting the growth of cancerous and precancerous cell populations comprising the step of applying a therapeutic amount of eugenol to said cell population for a sufficient time to observe arrest of population growth.

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2. The method of Claim 1 further comprising the step of applying a therapeutic amount of 2-ME in combination with said amount of eugenol to said cell population.

3. The method of claim 1 wherein said cancerous cell populations are prostate cancer cells.

- 4. A therapeutic agent useful in the prevention and treatment of cancerous tumors comprising eugenol and 2-methoxyestradiol.
- 15 5. The therapeutic agent of Claim 4 wherein said cancerous tumors are prostate cancer tumors.
 - 6. A therapeutic agent for the prevention and treatment of enlarged, non-cancerous prostage tissues comprising a therapeutic dossage of 2-methoxyestradiol.

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7. The therapeutic agent of Claim 6 further comprising a therapeutic dossage of eugenol.

8. A method for preventing the development of, or for treating existing enlarged, non-cancerous prostate glands in mammals comprising the steps of administering a therapeutic dossage of 2-methoxyestradiol.

9. The method of Claim 8 further comprising the administration of a therapeutic dossage of eugenol in combination with said 2-methoxyestradiol.